

ADDITIONS TO THE KNOWN SPECIES OF *PSEUDOTYPOCERUS* AND *STRANGALIA* (COLEOPTERA: CERAMBYCIDAE)

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The lepturine genera *Pseudotypocerus* Linsley and Chemsak and *Strangalia* Audinet-Serville have been treated recently by Chemsak and Linsley (1976a, 1976b). In their summary, *Pseudotypocerus*, which was formerly monotypic, was increased to five species, all occurring in Mexico and/or Central America. Although the genus *Strangalia* then consisted of 21 species in these regions, an additional species has since been described from Honduras (Chemsak and Linsley, 1979). Recent collections have now turned up further undescribed species in these genera, some of which are described below.

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Key to the Species of *Pseudotypocerus*

1. Pronotum rather coarsely, separately punctate, punctures dense or very sparse 2
- Pronotum finely, very densely punctate, punctures confluent ... 5
- 2(1). Pronotum densely punctate, punctures larger than those at base of elytra 3
- Pronotum very sparsely punctate and pubescent, punctures subequal to those at base of elytra; abdomen sparsely punctate, pubescence short, sparse. Length, 12-14 mm. El Salvador *nitidicollis* Chemsak and Linsley
- 3(2). Elytra with pubescence black under oblique light; head with front broader across genae than length from bases of genae to base of labrum 4
- Elytra with pubescence appearing golden in oblique light; head with front measured from bases of genae to base of labrum as long as width across genae. Length, 10-13 mm. Mexico to Nicaragua *rufiventris* (Bates)
- 4(3). Antennae with segments from fifth clothed with golden appressed pubescence. Abdomen black, with last sternite in males im-

- pressed over the apical $\frac{1}{3}$. Integument with strong metallic overtones. Length, 14 mm. Panama
- *virescens* Chemsak and Linsley
- Antennae with outer segments densely clothed with very fine, short, whitish pubescence. Abdomen reddish, with last sternite in males barely impressed at apex. Integument vaguely metallic. Length, 13–16 mm. Costa Rica
- 5(1). Antennae with outer segments finely black pubescent 6
- Antennae with outer segments densely golden pubescent 7
- 6(5). Elytra more than $2\frac{1}{2}$ times as long as broad, punctures behind scutellum finely granulate, contiguous, apices black. Length, 13–16 mm. Costa Rica and Panama
- *cantharidis* Chemsak and Linsley
- Elytra less than $2\frac{1}{2}$ times as long as broad, punctures behind scutellum not granulate, separated, disk with two broad, longitudinal, yellowish vittae. Length, 12 mm. Panama
- *vittatus*, new species
- 7(5). Abdomen finely, densely punctate and pubescent 8
- Abdomen glabrous, almost impunctate; integument yellow and black, elytra with broad black bands over humeri to basal $\frac{1}{4}$ and less than apical $\frac{1}{2}$ black. Length, 12 mm. Panama
- *dimidiatus*, new species
- 8(7). Elytra densely, confluent punctate; pronotum inflated, abruptly narrowed at apex; neck, pronotum and scutellum orange. Length, 11–15 mm. Panama
- *inflaticollis* Chemsak and Linsley
- Elytra with punctures separated by more than their diameters; pronotum moderately convex, gradually narrowing to apex; pronotum, scutellum and two narrow, longitudinal vittae of elytra orange. Length, 14 mm. Panama
- *auricornis*, new species

***Pseudotypocerus ater*, new species**

Male.—Form strongly tapering; color black, most shining black parts with faint greenish to bluish metallic overtones, abdomen reddish. Head with front measured from bases of genae to base of labrum wider across genae than long; vertex opaque, finely, confluent punctate; antennae with poriferous areas from segment five, segments from seventh with a double set. Pronotum moderately strongly convex, apex narrowly impressed; disk finely densely punctate, middle with a glabrous longitudinal line; pubescence dark golden and black, depressed; prosternum minutely punctate, finely golden pubescent; meso- and metasternum very finely, densely punctate, densely clothed with golden depressed pubescence. Elytra more than $2\frac{1}{2}$

times as long as broad, strongly tapering; punctures fine, separated; pubescence short, dark, depressed; apices obliquely, shallowly emarginate truncate, outer angle dentate. Legs slender, black and golden pubescent. Abdomen with sternites minutely punctate at bases and middle; last sternite elongate, shallowly impressed at apex. Length, 13–15 mm.

Female.—Form more robust. Antennae extending to second abdominal segment. Abdomen with last sternite dentate at angles; last tergite emarginate at apex. Length, 15–16 mm.

Holotype male, allotype (Canadian National Collection) and 6 paratypes (5 males, 1 female) from 6 km S. Santa Elena, Puntarenas, Costa Rica, 30 May 1979, 2 June 1979, on flowers of *Croton* (H. and A. Howden); one additional female paratype from Turrialba, Costa Rica (E. A. Bottcher).

This species is closely related to *P. virescens* but differs by the reddish abdomen, lack of golden pubescence on the antennae and barely impressed last abdominal sternite. The golden pubescence on the elytra of *P. rufiventris* will separate that species from *P. ater*.

***Pseudotypocerus vittatus*, new species**

Female.—Form moderate-sized, rather short; integument black, prothorax, mesosternum, front tibiae except apically, orange, elytra with two broad, yellowish longitudinal vittae. Head with front from bases of genae to base of labrum longer than width across genae; vertex finely, densely punctate with larger punctures interspersed; pubescence sparse, short; antennae extending to about third abdominal segment, outer segments clothed with fine dark pubescence, segments from fifth with double rows of poriferous areas. Pronotum moderately convex, apex moderately strongly impressed; disk finely, confluent punctate, median line narrow; pubescence depressed, orange; prosternum glabrous, minutely punctate between coxae; meso- and metasternum minutely, densely punctate, densely clothed with short, depressed, golden pubescence. Elytra less than 2½ times as long as broad; basal punctures fine, separated, dense; pubescence short, depressed, mostly golden; apices obliquely emarginate. Legs slender, black and golden pubescent. Abdomen minutely, very densely punctate, densely clothed with appressed golden pubescence; last sternite impressed at apex; last tergite subtruncate at apex. Length, 12 mm.

Holotype female (Ohio State University) from Santa Fe, Darien Province, Panama, 29 May 1967 (D. M. DeLong and C. Triplehorn).

The coloration, black pubescent antennae, and punctation of the elytra will separate this species from other *Pseudotypocerus*.

***Pseudotypocerus dimidiatus*, new species**

Female.—Form moderate-sized, moderately tapering posteriorly; integument yellow-orange, head, neck, antennae, legs except spots at bases of

front and middle femora, sides of mesosternum, metasternum, last two abdominal segments, scutellum, apices of elytra and humeri broadly, black. Head with front across genae as broad as length from bases of genae to base of labrum; vertex finely, densely punctate with some larger contiguous punctures present; pubescence fine, pale; antennae extending to second abdominal segment, segments from apex of fifth densely clothed with appressed pubescence which appears golden in oblique light, poriferous areas small. Pronotum moderately convex, gradually narrowing to apex; disk finely confluent punctate, median line vague, pubescence fine, orange, depressed; prosternum subglabrous, meso- and metasternum finely, densely punctate, moderately densely clothed with short, depressed pubescence. Elytra less than $2\frac{1}{2}$ times as long as broad; punctures very fine, dense, lightly granulate; pubescence short, depressed, orange on pale areas, black on dark areas; apices obliquely emarginate. Legs slender, gold and dark pubescent. Abdomen glabrous, almost impunctate; last sternite impressed over apical $\frac{1}{2}$; last tergite emarginate at apex. Length, 12 mm.

Holotype female (California Academy of Sciences) from Cerro Azul, 700 m, Panama Province, Panama, 20 May 1972 (D. Ingleman).

The distinctive coloration and glabrous abdomen make this species readily recognizable. The color pattern of the elytra will probably prove to be variable when more material becomes available.

***Pseudotypocerus auricornis*, new species**

Female.—Form moderate-sized, strongly tapering posteriorly; integument black with vague metallic overtones, prothorax and sides of mesosternum orange, elytra with longitudinal, yellowish vittae at middle extending from behind scutellum to beyond middle. Head broader across genae than length from bases of genae to base of labrum; vertex finely, densely punctate with larger punctures interspersed; pubescence fine, sparse; antennae extending to second abdominal segment, segments from third densely golden pubescent; poriferous areas small. Pronotum moderately convex, rather abruptly impressed at apex; disk very finely, confluent punctate; pubescence orange, depressed; prosternum sparsely pubescent; meso- and metasternum finely, densely punctate, densely clothed with depressed, golden pubescence. Elytra slightly more than $2\frac{1}{2}$ times as long as broad; punctures fine, well separated; pubescence short, dark, depressed; apices obliquely truncate. Abdomen minutely, densely punctate, apical margins of sternites not punctate, pubescence fine, depressed, silvery; last sternite impressed at apex; last tergite notched at apex. Length, 14 mm.

Holotype female (California Academy of Sciences) from Barro Colorado Island, Canal Zone, Panama, 25 May 1972 (J. Irwin).

This species is distinctive by the golden pubescent antennae and well separated punctures of the elytra.

***Strangalia cavei*, new species**

Male.—Form slender, elongate, strongly tapering posteriorly; integument black, part of head, front coxae and femora, midfemora and basal ½ of hind femora yellowish, elytra testaceous, broadly black along lateral margins, narrowly black along suture, apices black. Head with front moderately long, irregularly, sparsely punctate, finely sparsely pubescent; vertex finely, densely punctate, finely pubescent; palpi very unequal, apical segments of maxillary pair large, elliptical; antennae slender, extending to apices of elytra, segments from fifth with poriferous areas, areas very large on segments seven to eleven, segments from apex of fifth opaque. Pronotum with sides slightly sinuous, apex narrowly impressed, disk moderately convex with a rather vague median line; punctures larger than those at base of elytra, subcontiguous; pubescence short, depressed, black at middle, golden at sides; prosternum glabrous at middle; meso- and metasternum finely, densely punctate, densely clothed with short, depressed, golden and grayish pubescence. Elytra more than three times as long as broad, strongly attenuated, moderately dehiscent; punctures fine, separated by at least a puncture diameter; pubescence short, depressed, black and golden; apices obliquely, shallowly emarginate. Legs slender; front tibiae arcuate, hind tibiae noncarinate, tarsi elongate. Abdomen extending two segments beyond elytra; first four segments minutely, densely punctate at bases, punctures becoming larger and sparser toward apex, apical margins glabrous; pubescence fine, depressed; last sternite excavated for its length, glabrous internally, carinate medially at base, sides moderately produced, apices rounded. Length, 18–20 mm.

Holotype male (California Academy of Sciences) and three male paratypes from Bosque El Imposible, Depto. Ahuachapan, 745 meters, El Salvador, 18 June 1979, on flowers of *Croton* (R. D. Cave). One male paratype, Puerta Mayor, 600 meters, Bosque El Imposible, 17 June 1979 (R. D. Cave).

The type series shows little variation in coloration with only the apices of the elytra varying in the extent of black.

In the key to *Strangalia* (Chemsak and Linsley, 1976b) this species will come out in couplet 4 with *gracilis* and *lachrymans*. *S. cavei* differs from *gracilis* by its larger, more robust form, shorter face, larger apical segments of the maxillary palpi and thicker distal antennal segments. From *lachrymans*, it may be separated by the depressed pubescence of the pronotum, more densely punctate elytra, and less strongly inflated sides of the last sternite of the abdomen.

This species is named for R. D. Cave who collected and made the type series available for study.

Since the name, *Strangalia gracilis* Chemsak, 1969, is preoccupied by

Strangalia (Strangalina) gracilis Gressitt, 1934 from the Loochoo Islands, we here propose *Strangalia sinaloae*, new name for *gracilis* Chemsak.

***Strangalia anneae*, new species**

Male.—Form slender, elongate, strongly tapering posteriorly; integument black, mouthparts, front coxae, femora and undersides of tibiae, middle femora and undersides of tibiae and hind femora brownish orange, elytra dark testaceous, lateral margins narrowly dark at basal $\frac{1}{2}$ and more broadly over apical $\frac{1}{2}$, suture very narrowly dark. Head with front moderately elongate, irregularly, sparsely punctate, very finely, sparsely pubescent; vertex finely, confluent punctate, very sparsely pubescent; palpi very unequal, apical segments of maxillary pair long, shallowly excavated beneath; antennae as long as elytra, segments from sixth moderately enlarged, segments from fifth with large poriferous areas. Pronotum narrow, sides barely sinuate, apex narrowly impressed; punctures larger than those at base of elytra, dense except for glabrous median spot near basal margin; pubescence short, depressed, golden in oblique light; prosternum broadly glabrous at middle; meso- and metasternum finely, densely punctate, densely clothed with short, depressed, golden pubescence, metasternum with a small tubercle on each side of middle. Elytra more than three times as long as broad, strongly attenuated, moderately dehiscent; punctures fine, separated by at least a puncture diameter; pubescence short, depressed, dark and golden; apices obliquely emarginate. Legs slender; front tibiae arcuate; hind tibiae non-carinate; tarsi elongate. Abdomen extending two segments beyond elytra; sternites minutely, densely punctate at bases, punctures becoming larger and sparser toward apices, first two segments glabrous along apical margins, pubescence fine, short; last sternite excavated for most of its length, glabrous at middle, sides moderately produced, apices subacute. Length, 17–20 mm.

Female.—Form more robust, elytra less attenuated. Antennae shorter than elytra, poriferous areas small. Maxillary palpi with apical segments not excavated beneath. Pronotum orange except at apex, shining, very sparsely, irregularly punctate and pubescent; metasternum non-tuberculate. Under-side orange, legs black. Abdomen subglabrous; last sternite black, shallowly impressed at apex, sides dentate; last tergite medially impressed, narrowly emarginate, apex bidentate. Length, 16 mm.

Holotype male, allotype (Canadian National Collection) and two male paratypes from 6 km S. Santa Elena, Puntarenas, Costa Rica, 1100 m, 2 June 1979 on flowers of *Croton* (H. and A. Howden).

This species varies in coloration with the elytra often all black except for a broad basal testaceous area. It will also key to couplet 4 (*gracilis* and

lachrymans) in Chemsak and Linsley's 1976 key. *S. anneae* differs from both of those species by the poriferous areas of the antennae, size and shape of the excavation of the last abdominal sternite and by the presence of metasternal tubercles in the males. From *cavei*, *anneae* differs by the more slender pronotum and maxillary palpi and by having the last abdominal sternite not excavated for its entire length.

We are pleased to dedicate this species to Anne T. Howden.

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